EVT SCOOTERS

SERVICE MANUAL

EVT- 4000e

BEV BRAVO ELECTRIC VEHICLES

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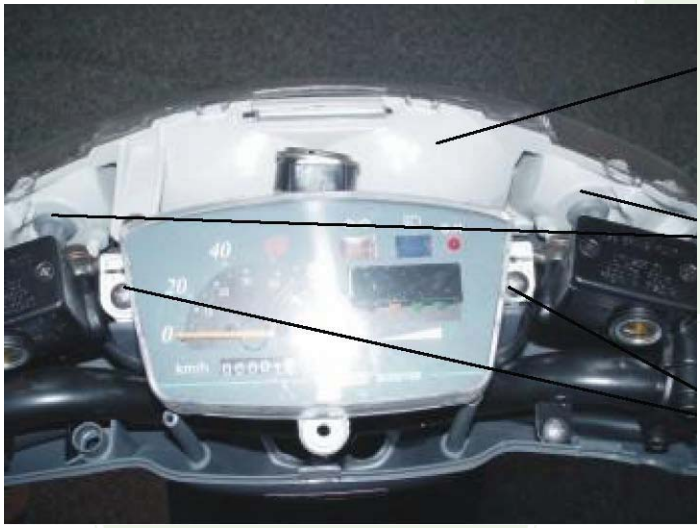
Headlight Assembly

Tools Required: Phillips screwdriver
Time: Allow 10 minutes for procedure

1. Release three screws on the handle cover.

2. Release two mounting screws on the instrument panel, and then release three screws on the head light assembly.



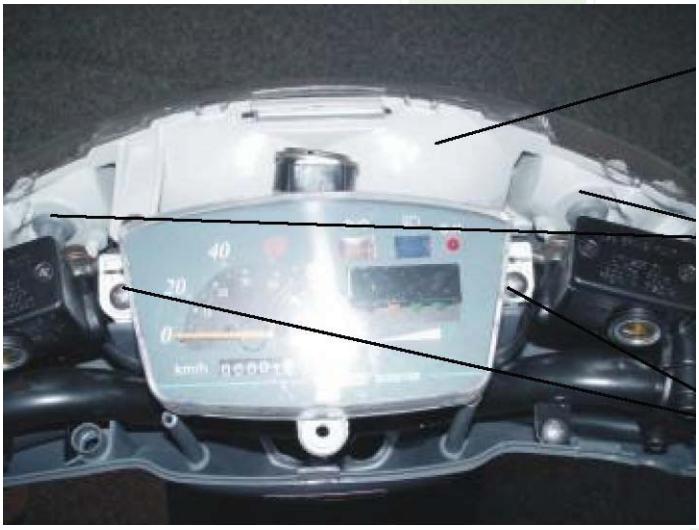
3. Follow with the reversed steps to restore.

Headlight Bulb

Tools Required: Phillips Screwdriver
Time: Allow 10 minutes for procedure

1. Release three screws on the handle cover.

2. Release two mounting screws on the instrument panel.



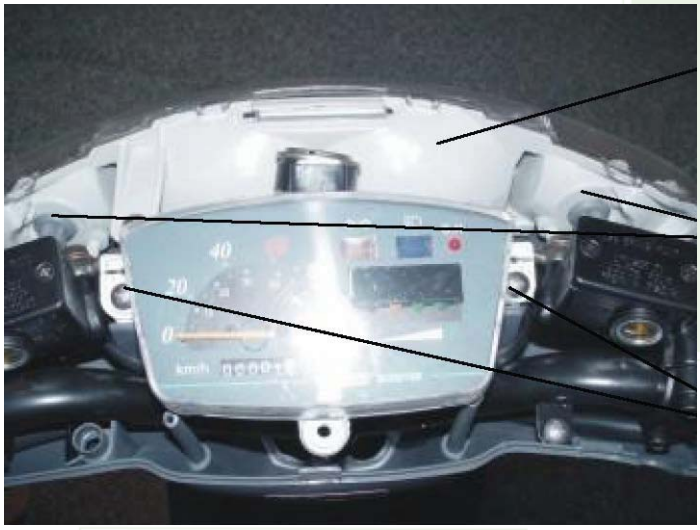
3. Follow with the reversed steps to restore.

Signal Light Bulb

Tools Required: Phillips screwdriver; T-bend socket wrench, 8mm
Time: Allow 10 minutes for procedure

1. Release three screws on the handle cover.

2. Release signal light bulb set for replacement.



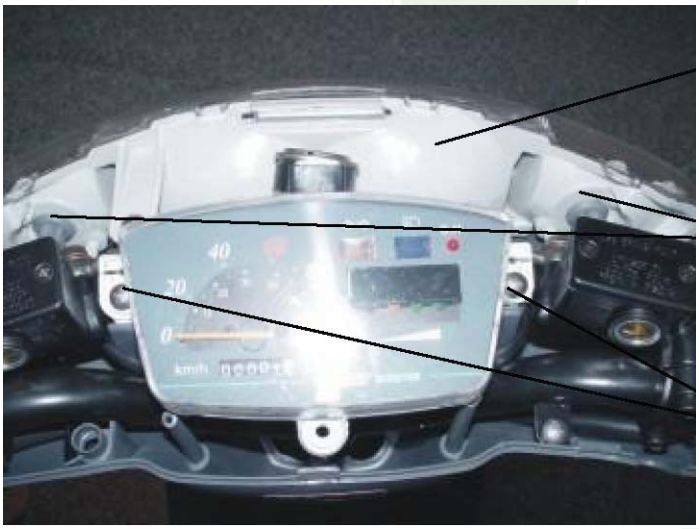
3. Follow with the reversed steps to restore.

Instrument Panel

Tools Required: Phillips screwdriver
Time: Allow 10 minutes for procedure

1. Release three screws on the handle cover.

2. Release two mounting screws on the instrument panel.



3. Release the nut for the speedometer.
4. Follow with the reversed steps to restore.

Speedometer Cable

Tools Required: Phillips screwdriver
Time: Allow 10 minutes for procedure

1. Release three screws on the handle cover.
2. Release two mounting screws on the instrument panel.
3. Release the nut for the speedometer.
4. Release three screws on the front cover.

5. Release speedometer nut on the front wheel.

6. Follow with the reversed steps to restore.

Speedometer Gear

Tools Required: Box wrench, 17mm
Time: Allow 10 minutes for procedure

1. Release front axle nut.

2. Remove the front wheel.
3. Follow with the reversed steps to restore.

Key Switch

Tools Required: Phillips screwdriver; T-bend socket wrenches, 8mm and 10mm
Time: Allow 10 minutes for procedure

1. Release three screws on the front cover.

2. Release six screws on the front fender.
3. Release three screws on the glove box.

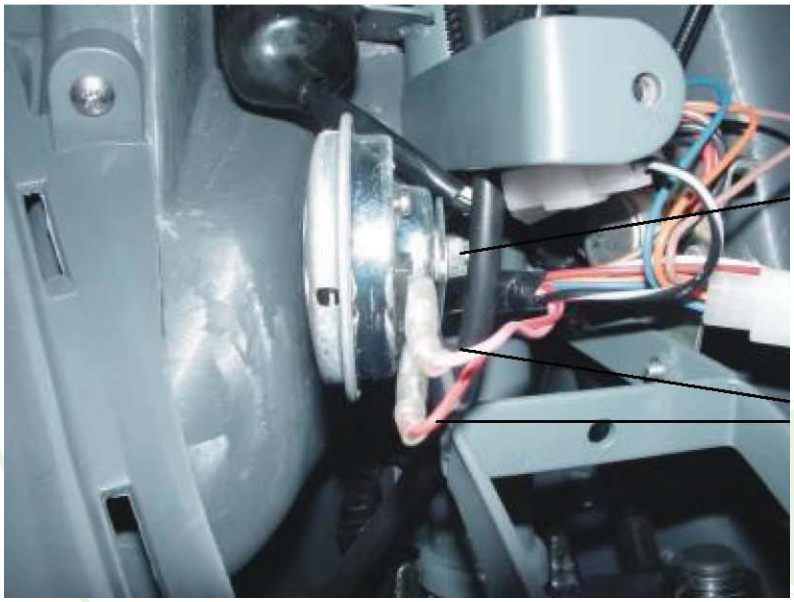
4. Release 4-pin connector and two screws on the key switch.
5. Follow with the reversed steps to restore.

Horn

Tools Required: Phillips screwdriver
Time: Allow 10 minutes for procedure

1. Release three screws on the front cover.
2. Release two connectors on the horn.

3. Release the mounting screws on the horn.

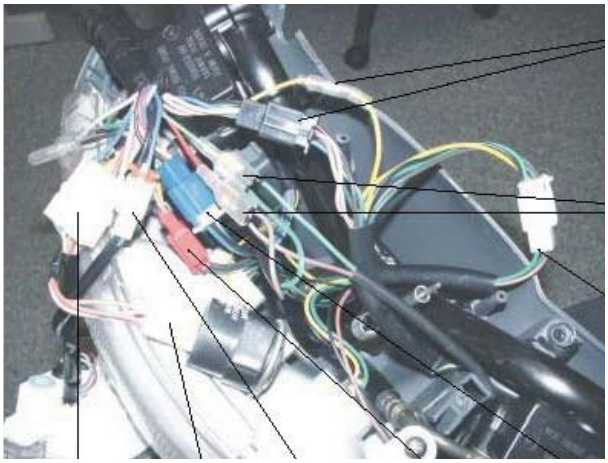


4. Follow with the reversed steps to restore.

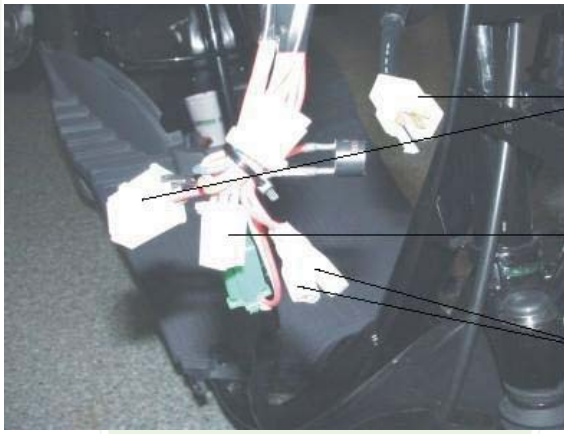
Main Control Cord

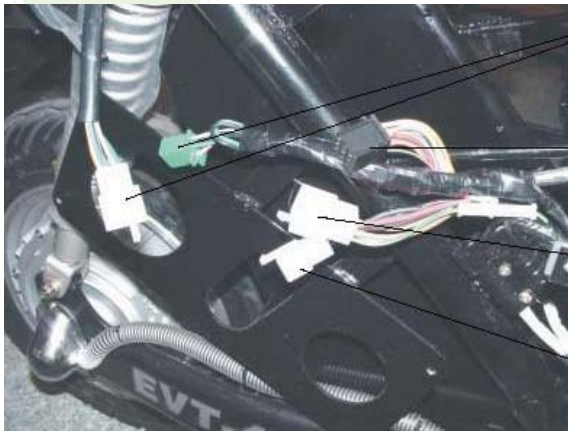
Tools Required: Phillips screwdriver
Time: Allow 10 minutes for procedure

1. Release three screws on the handle cover, two mounting screws on the instrument panel, three screws on the headlight, three screws on the front cover and two screws on the right trim.
2. Release all of the connectors stores inside the handle cover.



3. Release all of the connectors stored inside the front cover.



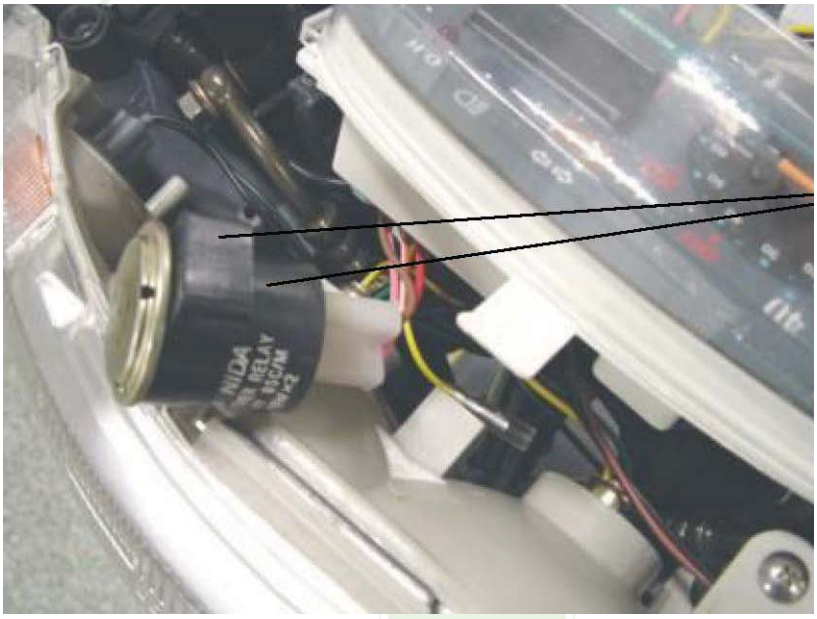


4. Release all of the connectors stored inside the right cover.
5. Follow with the reversed steps to restore.

Flasher Relay

Tools Required: Phillips screwdriver
Time: Allow 10 minutes for procedure

1. Release three screws on the handle cover, and remove the rubber sleeve so can see the 2 pin connector for the flasher relay.



2. Follow with the reversed steps to restore.

DC to DC Converter

Tools Required: Phillips screwdriver
Time: Allow 10 minutes for procedure

1. Release three screws on the front panel.
2. Release two screws and 4-pin connector for the DC to DC converter.

3. Follow with the reversed steps to restore.

Left Handle Switch

Tools Required: Phillips screwdriver; open-end wrench, 14mm
Time: Allow 10 minutes for procedure

1. Remove left rear view mirror and release three screws on the handle cover.

2. Release two mounting screws on the instrument panel.
3. Release two screws on the left handle switch.
4. Follow with the reversed steps to restore.

Right Handle Switch

Tools Required: Phillips screwdriver; Open-end wrench, 14mm
Time: Allow 10 minutes for procedure

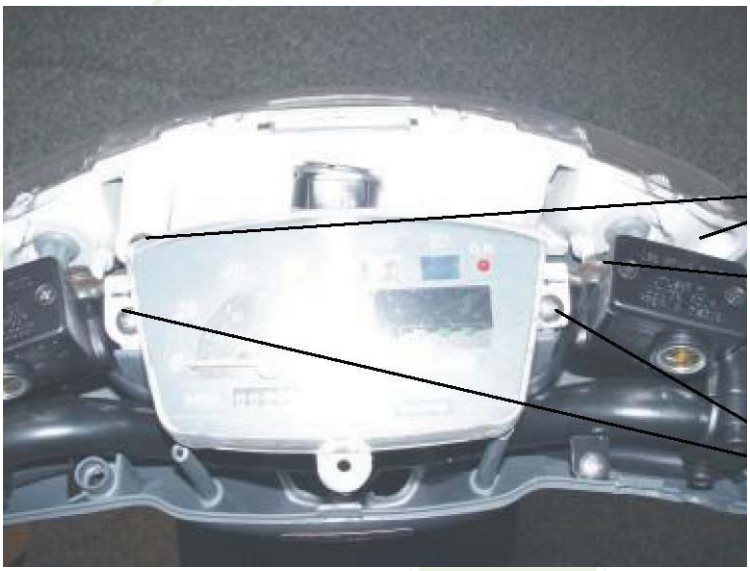
1. Remove the right rear mirror and three screws on the handle cover.

2. Release two mounting screws on the instrument panel.
3. Release two screws on the right handle switch and one screw for the throttle cable.
4. Follow with the reversed steps to restore.

Brake Master Cylinder

Tools Required: Phillips screwdriver; Box wrench, 12mm; Hex key wrench, 5mm
Time: Allow 10 minutes for procedure

1. Release three screws on the handle cover, two mounting screws on the instrument panel and three screws on the headlight assembly.



2. Check the fluid in reservoir for refuel or replace the blake fluid.
3. Replace reservior for a.) gasket fail or wear out, or b.) leaking.
4. Release the screw on the brake hose.
5. Release two screws on the reservoir.

Front Fork

Tools Required: Phillips screwdriver; T-bend socket wrench, 8mm; Box wrenches, 14mm and 17mm; Y-bend socket wrench, 12mm
Time: Allow 10 minutes for procedure

1. Release three screws on the front cover.
2. Release six screws on the front fender.
3. Release three screws on the glove box.
4. Release clamping screw for the handle.

5. Release front axle nut to remove the wheel.
6. Release two screws on the caliper.

7. Release two screws on the front fork and check the steel balls to see if they are missing.
8. Properly adjust the front fork clearance and follow the reversed steps to restore.

Rear Shock Absorber

Tools Required: Phillips screwdriver; T-bend socket wrenches, 12mm and 14mm
Time: Allow 10 minutes for procedure

1. Release two screws on the trim on each left and right side.

2. Release two screws on the left shock absorber.

3. Repeat to replace right shock absorder.
4. Follow with the reversed steps to restore.

Front Brake Hose

Tools Required: Phillips screwdriver; Box wrench, 12mm; diagonal cutting pliers
Time: Allow 10 minutes for procedure

1. Release three screws on the handle cover.
2. Release two screws on the right reservoir.

3. Release the screw on the brake hose of the front wheel Avoid fuel leaking to the pad.

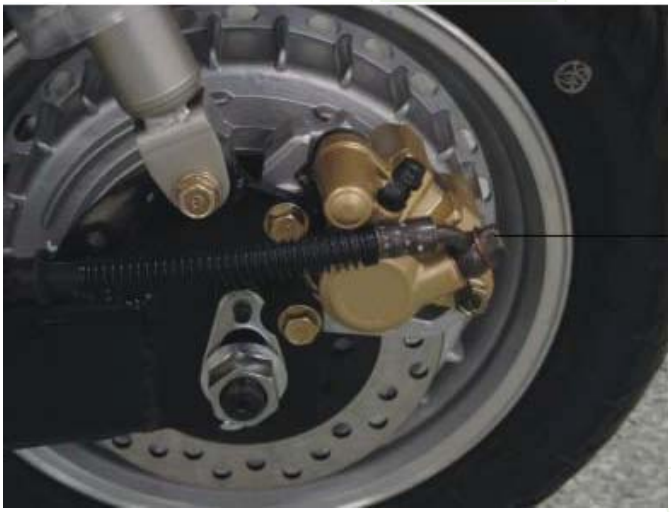
4. Release the screw on the right side brake hose.
5. Release three screws on the front cover.
6. Cut off the band, then carefully pull out the hose.
7. Follow with the reverse steps to restore.

Rear Brake Hose

Tools Required: Phillips screwdriver; Box wrench, 12mm; Diagonal cutting pliers
Time: Allow 10 minutes for procedure

1. Release three screws on the handle cover.
2. Release two screws on the left reservoir.

3. Release the screw on the brake hose of the rear wheel Avoid fuel leaking to the pad.



4. Release the screw on the left side brake hose.
5. Release three screws on the front cover.
6. Release six screws on the front fender.
7. Release two screws on the left trim.
8. Cut off the band, and carefully pull out the hose.
9. Follow with the reversed steps to restore.

Front Caliper

Tools Required: Phillips screwdriver; Box wrench, 12mm; Y-bend socket wrench, 12mm
Time: Allow 10 minutes for procedure

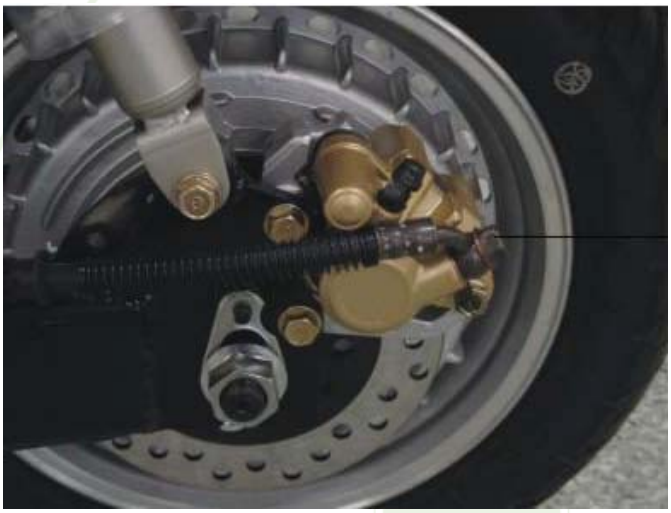
1. Release three screws on the handle cover.
2. Release the screw on the front caliper. Avoid fluid leaking to the pad.

3. Release the screw on the pad, then remove the pad.
4. Release two mounting screws on the caliper.

Rear Caliper

Tools Required: Phillips screwdriver; Box wrench, 12mm; Y-bend socket wrench, 12mm
Time: Allow 10 minutes for procedure

1. Release three screws on the handle cover.
2. Release the screw on the rear caliper. Avoid fluid leaking to the pad.



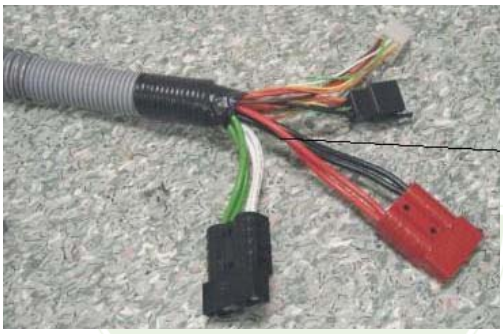
3. Release the screw on the pad.
4. Release two mounting screws on the caliper.

Controller

Tools Required: Phillips screwdriver
Time: Allow 10 minutes for procedure

1. Release two screws on the right side trim.

2. Release the connectors of controller wire harness (1 black, 1 red, 1 black 9-pin, 1 white 9-pin). Release the copper nut of the throttle cable and pull it out. Put a nail through the hold to prevent pillar from drawing back.



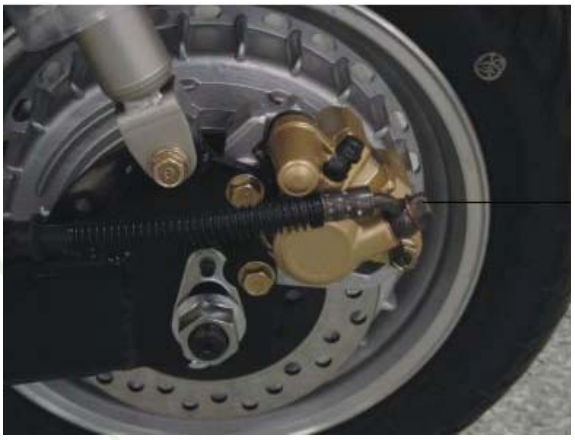
3. Release four screws on the controller, and cut off the band to remove the controller.

Motor

Tools Required: Phillips screwdriver; Open-end wrench, 24mm; Y-bend socket wrench, 12mm; Diagonal cutting pliers
Time: Allow 10 minutes for procedure

1. Release the black connector of the motor cord.

2. Cut off the band.
3. Release three screws on the motor cord cover.
4. Release two nuts for the motor shaft.
5. Release the rear caliper to remove the motor.



6. Follow with the reversed steps to restore.

Rear Brake Disk

Tools Required: Phillips screwdriver; Open-end wrench, 24mm; Y-bend socket wrench, 12mm; Hex key wrench, 6mm; Diagonal cutting pliers
Time: Allow 10 minutes for procedure

1. Releaase the black connector of the motor cord.

2. Cut off the band.
3. Release three screws on the motor cord cover.
4. Release two nuts for the motor shaft.
5. Release the rear caliper to remove the motor.
6. Release three screws on the brake disk to remove the disk.

7. Follow with the reversed steps to restore.

Front Brake Disk

Tools Required: Box wrench, 17mm; Hex key wrench, 6mm
Time: Allow 10 minutes for procedure

1. Release the screw for the front axle nut to remove the front wheel.

2. Release three screws on the disk.

3. Follow with the reversed steps to restore.

Rear Light Assembly

Tools Required: Phillips screwdriver; Hex-key wrench, 6mm; Y-bend socket wrench, 10mm; T-bend socket wrench, 10mm
Time: Allow 10 minutes for procedure

1. Release three screws on the tail compartment.
2. Release four screws on the trim on the left and right sides.

3. Release the screw on the center cover.

4. Release three screws on the side cover on the left and right sides.
5. Release two screws on the tail fender.
6. Follow with the reversed steps to restore.

Rear Lamp Bulb

Tools Required: Phillips screwdriver
Time: Allow 10 minutes for procedure

1. Release two screws on the rear lamp cover.

2. Remove the cover to replace the bulb.
3. Follow with the reversed steps to restore.

Troubleshooting

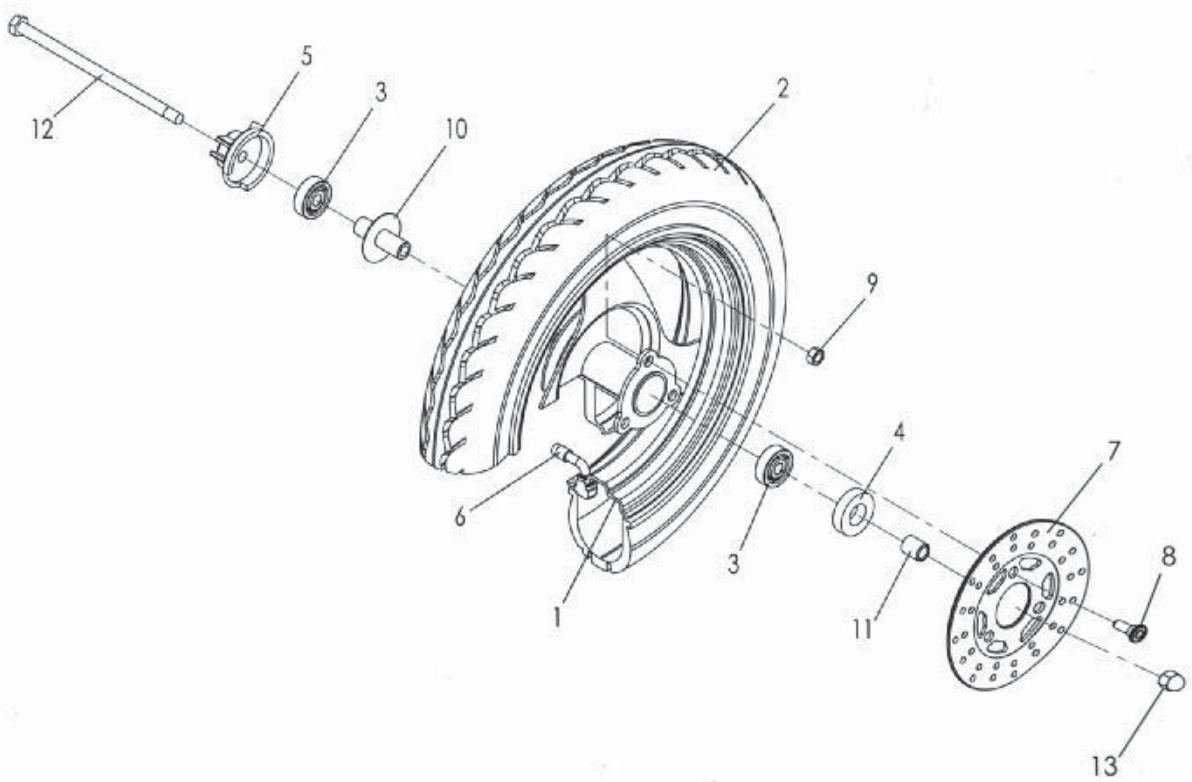
Conditions	Inspect	Repair
Display Panel indicator light is working, but there is no move while twisting throttle.	1. The power will cut off while braking. 2. Brake switch breakdown. 3. Check Controller cable is fixed. 4. Check Motor cable is fixed. 5. Motor breakdown. 6. Controller breakdown.	1. Release the brake and then gently twisting throttle. 2-6. See your agent.
Display Panel indicator light is not working or no starting beep sound while you turn the switch to the "ON" position.	1. Blown fuse. 2. Serious insufficient energy left. 3. Key switch breakdown. 4. Check main switch cable is fixed. 5. Controller breakdown. 6. Display panel breakdown. 7. Starting beeper breakdown.	1. Remove the fuse and replace or see your agent. 2. Recharge battery. 3-7. See your agent.
The first red light blinking (1).	1. Serious insufficient energy left. 2. Battery is aged or useless.	1. Recharge battery immediately. 2. Replace the battery.
The second yellow light blinking (2).	1. Insufficient energy left.	1. Recharge battery. (With the power cut off while driving, switch the power to "OFF" position, and wait for several minutes then restart. You may still drive a short distance.)
The third green light blinking while driving (3).	1. Over current. 2. Controller breakdown.	1. Switch the power to "OFF" position, and wait for a few seconds to restart. 2. See your agent.
The fourth green light blinking (4).	1. Throttle stuck. 2. Twisting throttle to pull away before the panel indicator stops blinking or the starting beep sound stops. 3. Controller breakdown.	1. See your agent. 2. Switch the power to "OFF" position, and wait for a few seconds to restart. 3. See your agent.
The OH indicator blinking.	1. Controller over heat. 2. Controller breakdown.	1. Switch the power to "OFF" position, and wait for several minutes, then restart. 2. See your agent.
Charging indicator is not lit.	1. Are the outlet and inlet plugged securely? 2. Wrong input voltage.	1. Pull out and insert again or change outlet.

Part Summary

FIG.01 FRONT WHEEL

Item NO.	Part NO.	Description	Qty.
1	0241-01000500	RIM, FRONT (DOT)	1
2	6240-00001	TIRE TUBELESS	1
3	6162-63004	BEARING	2
4	6222-351671	OIL SEAL	1
5	6279-100117	SPEEDOMETER GEAR SET	1
6	0241-10601	TIRE VALVE	1
7	0241-10701	BRAKE DISK, FRONT	1
8	6109-080171	SCREW	3
9	6142-080855	NUT, DOME HEAD	3
10	0241-10311	COLLAR, LARGE	1
11	0241-10321	COLLAR, SMALL	1
12	6113-101901	BOLT	1
13	6143-100801	NUT, DOME HEAD	1

FIG.01



Part Summary (cont'd)

FIG.02 FORK

Item NO.	Part NO.	Description	Qty.
1	0241-30101	FRONT FORK SET	1
2	0241-30501	CALIPER, FRONT	1
3	6112-080258	SCREW, NYLOK	2
4	0241-30401	RACE, BALL SET	1
5	0241-71601	FENDER, FRONT	1
6	6112-060208	SCREW, HEX HEAD	2
7	0241-30601	CABLE GUIDE, LEFT	1
8	0241-30602	CABLE GUIDE, RIGHT	1
9	6112-060126	SCREW, HEX HEAD	2

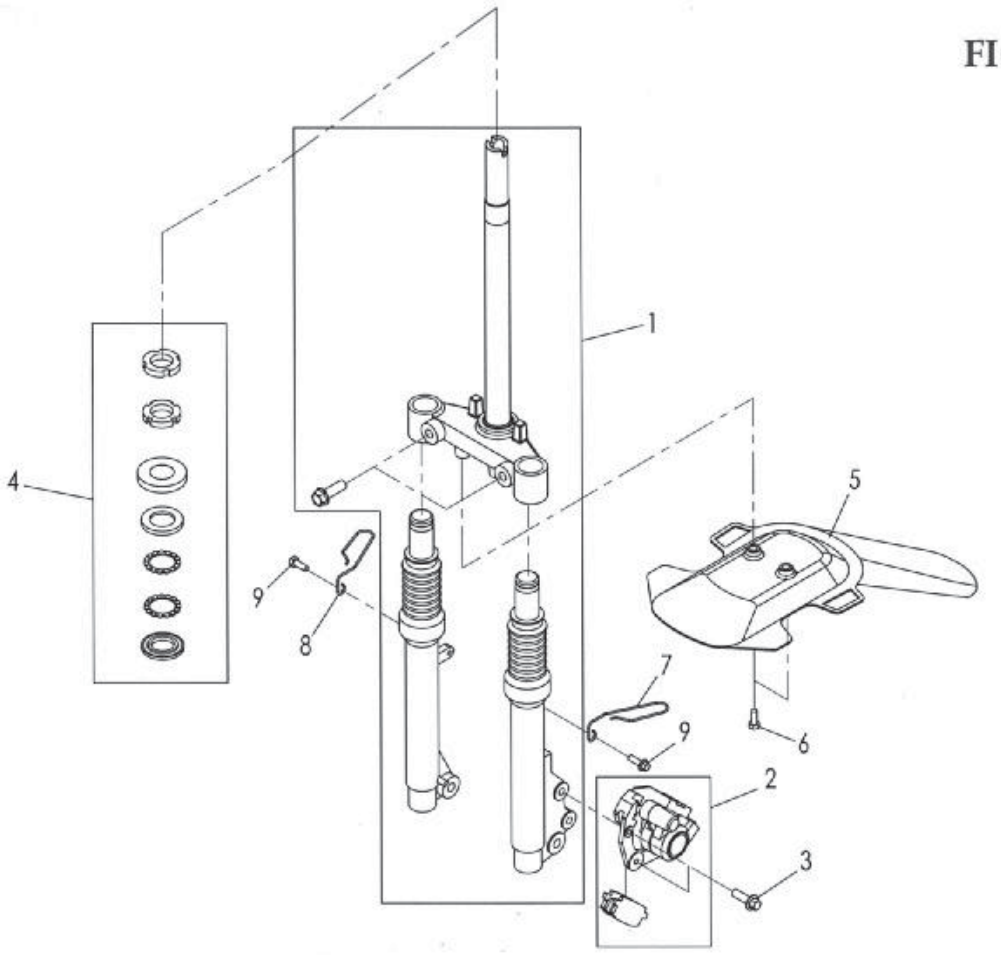


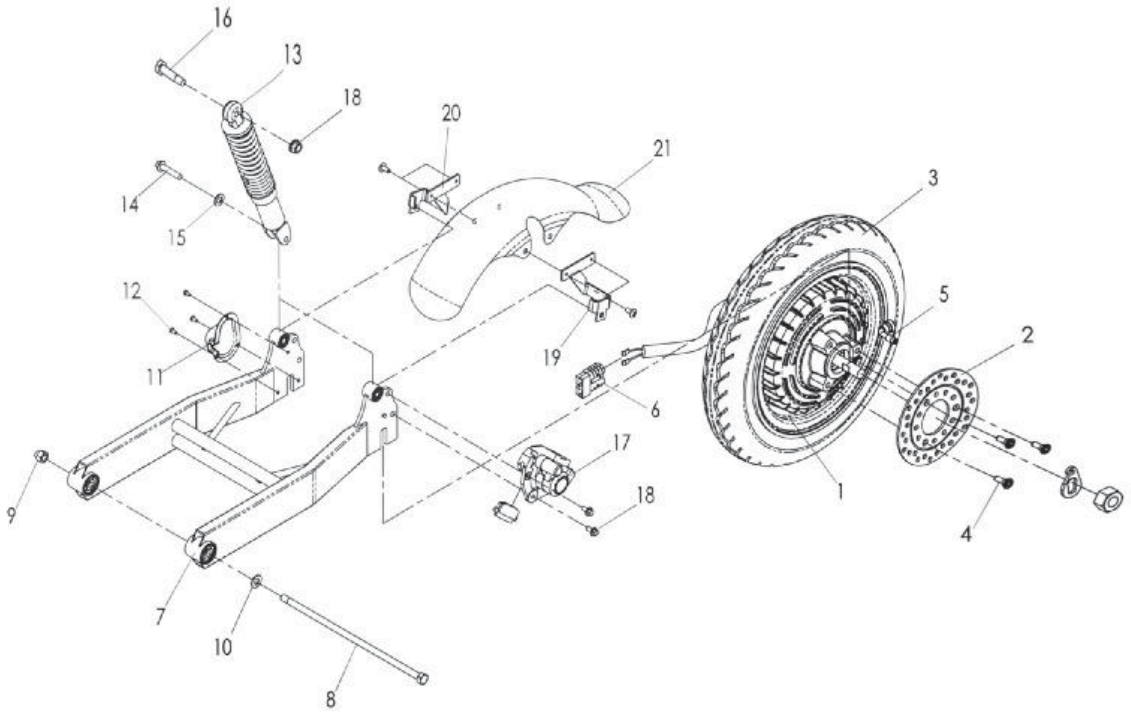
FIG.02

Part Summary (cont'd)

FIG.03 REAR WHEEL

Item NO.	Part NO.	Description	Qty.
1	02A9-05000101	MOTOR ASSY.	1
2	0241-20201	BRAKE DISC, REAR	1
3	6240-00001	TIRE, TUBELESS	1
4	6109-080201	SCREW, SOCKET	3
5	0241-10601	TIRE VALVE	1
6	6248-00001	CONNECTOR, BLACK	1
7	0241-01001204	REAR FORK SET	1
8	6113-103001	BOLT	1
9	6143-100801	NUT, DOME	1
10	6150-1030305	WASHER	1
11	0299-010016C3	COVER, MOTOR CORD	1
12	6126-041001	SCREW, PAN	3
13	0299-01001501	SHOCK ABSORBER, REAR	2
14	6112-080358	SCREW, HEX FLANGE	2
15	6151-0815208	WASHER	2
16	6111-100407	SCREW, HEX FLANGE	2
17	0241-30501	CALIPER, REAR	1
18	6112-080258	SCREW, NYLOK	2
19	6274-100110	BRACKET, REAR FENDER LEFT	1
20	6274-110110	BRACKET, REAR FENDER RIGHT	1
21	0241-71702	REAR FENDER	1

FIG.03



Part Summary (cont'd)

FIG.04 FRAME

Item NO.	Part NO.	Description	Qty.
1	0241-501011	FRAME	1
2	6266-100103	MAIN STAND	1
3	6111-081255	BOLT	1
4	6142-080855	NUT, FLANGE	1
5	0241-50302	SPRING, MAIN STAND	2
6	6266-200103	SIDE STAND	1
7	0241-50801	LOCK SET	1
8	6111-060408	SCREW, HEX	2
9	6111-060185	SCREW, HEX	1
10	6123-060251	SCREW, HEX	1

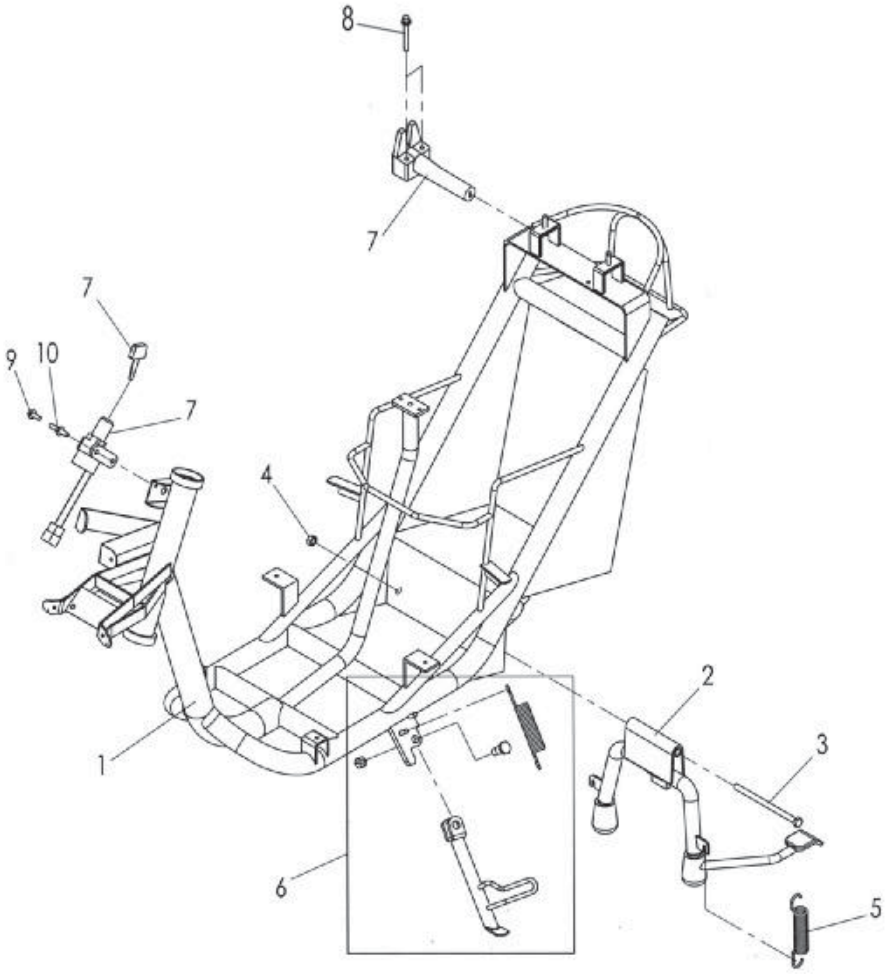


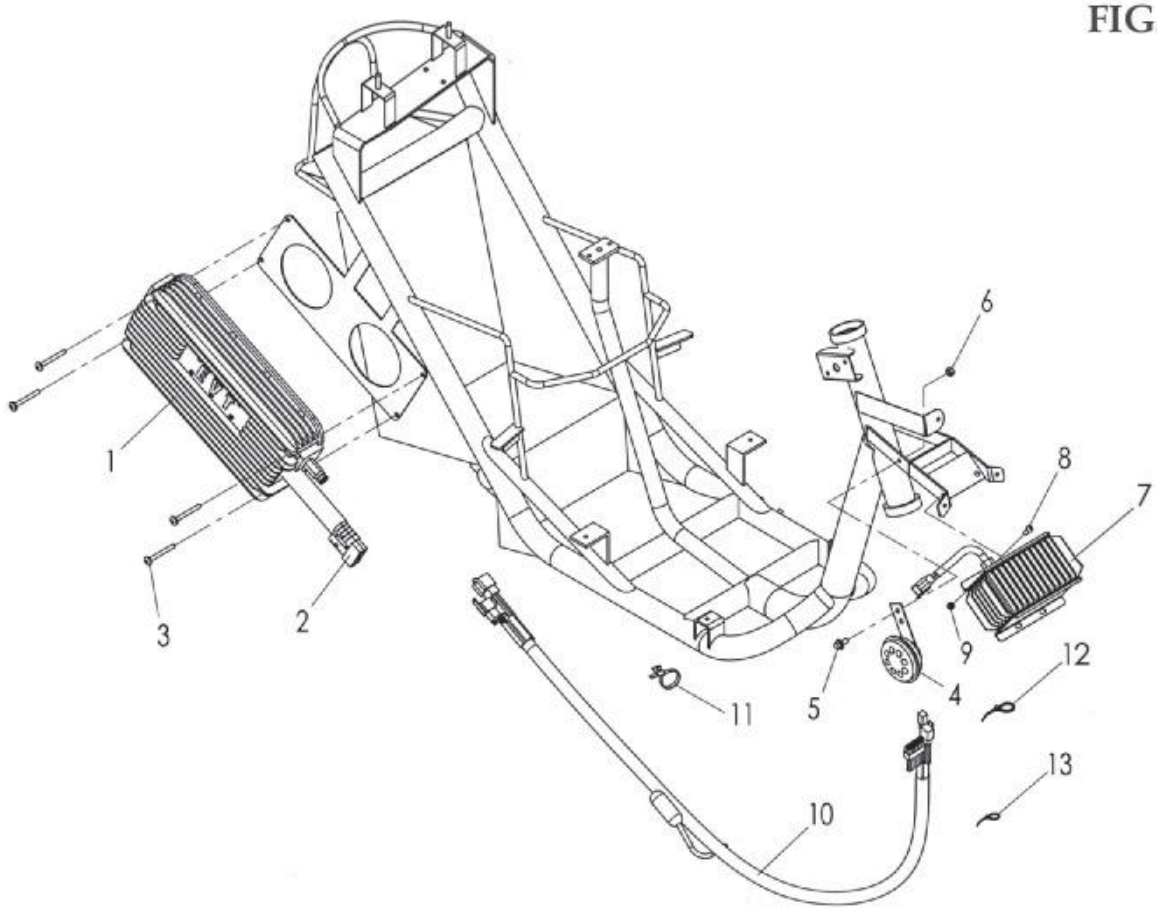
FIG.04

Part Summary (cont'd)

FIG.05 CONTROLLER

Item NO.	Part NO.	Description	Qty.
1	0268-05002802	CONTROLLER	1
2	6248-00002	CONNECTOR, RED	1
3	6126-052005	SCREW	4
4	6255-00001	HORN	1
5	6112-060126	SCREW, HEX HEAD	1
6	6141-060608	NUT, HEX FLANGE	1
7	0268-05002301	DC-DC CONVERTER	1
8	6126-051031	SCREW	2
9	6140-050408	NUT	2
10	0268-05000101	MAIN CONTROL CORD	1
11	6256-00280	TIE BAND	2
12	6256-00200	TIE BAND	10
13	6256-00120	TIE BAND	10

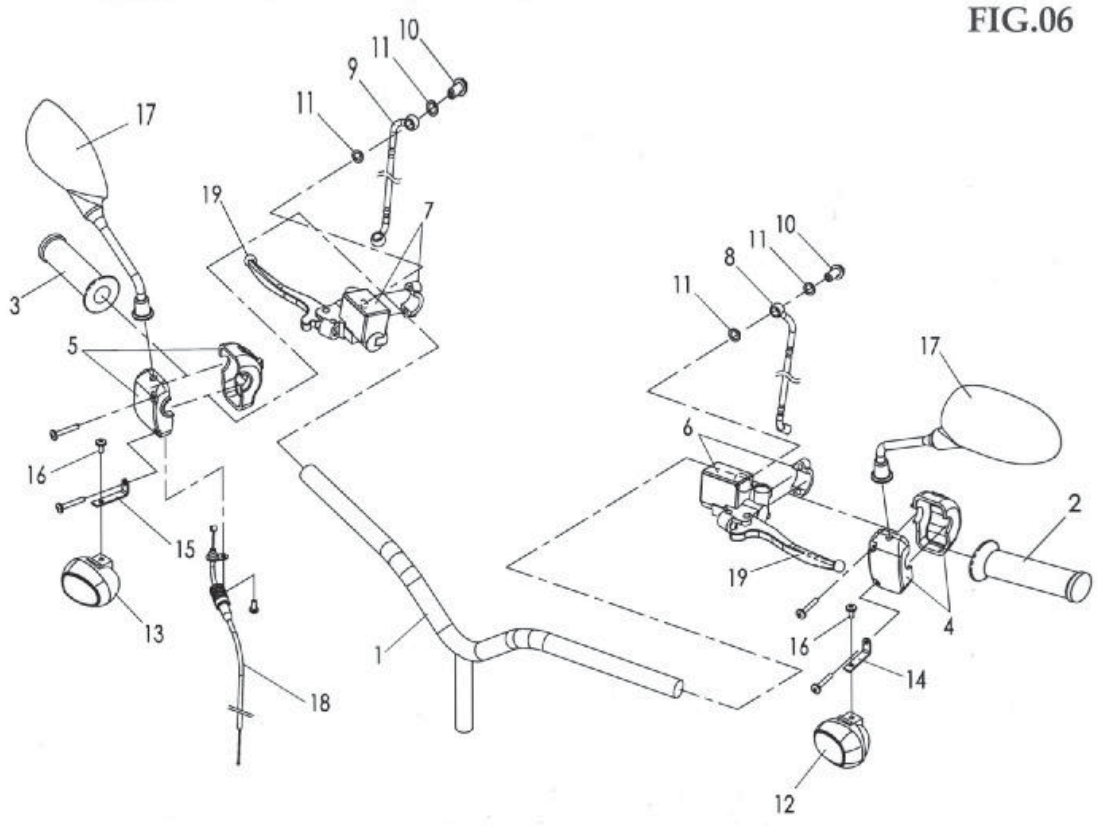
FIG.05



Part Summary (cont'd)

FIG.06 HANDLE BAR

Item NO.	Part NO.	Description	Qty.
1	0241-40101	HANDLE	1
2	6170-100110	GRIP, LEFT	1
3	6170-100210	GRIP, RIGHT	1
4	0241-40701	HANDLE SWITCH, LEFT	1
5	0241-05000300	HANDLE SWITCH, RIGHT	1
6	0241-40901	MASTER CYLINDER, LEFT	1
7	0241-41001	MASTER CYLINDER, RIGHT	1
8	0241-41101	BRAKE HOSE, LEFT	1
9	0241-41201	BRAKE HOSE, RIGHT	1
10	0241-41901	SCREW, HEX HEAD	4
11	0241-41902	WASHER	8
12	0241-41401	SIGNAL LIGHT, LEFT	1
13	0241-41403	SIGNAL LIGHT, RIGHT	1
14	0241-41402	BRACKET, LEFT	1
15	0241-41404	BRACKET, RIGHT	1
16	6126-051008	SCREW	2
17	0241-010009A1	REAR VIEW MIRROR SET	1
	0241-010009B1	REAR VIEW MIRROR R	1
	0241-010009C1	REAR VIEW MIRROR L	1
18	0299-01001700	CABLE, THROTTLE	1



Part Summary (cont'd)

FIG.07 METER/HEADLIGHT

Item NO.	Part NO.	Description	Qty.
1	0241-40202	HANDLE COVER, UPPER (SILVER)	1
	0241-40203	HANDLE COVER, UPPER (RED)	1
	0241-40204	HANDLE COVER, UPPER (GREEN)	1
	0241-40205	HANDLE COVER, UPPER (BLUE)	1
	0241-40208	HANDLE COVER, UPPER (DK GREEN)	1
2	0241-40301	HANDLE COVER, LOWER	1
3	0241-05000500	HEADLIGHT COMP	1
4	0241-05000200	DASHBOARD SET	1
5	6126-501511	SCREW, TAPPING	7
6	6241-00001	FLASHER RELAY	1
7	0241-41701	CABLE, SPEEDOMETER	1

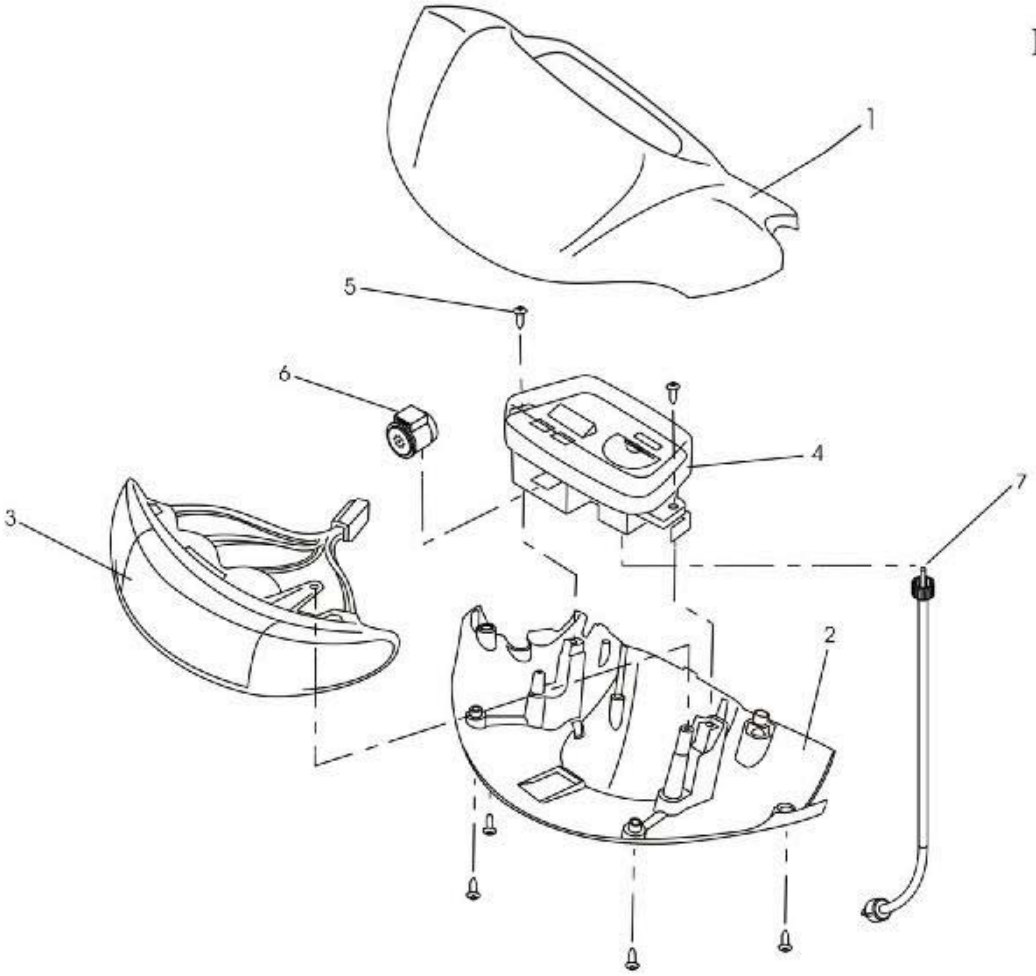


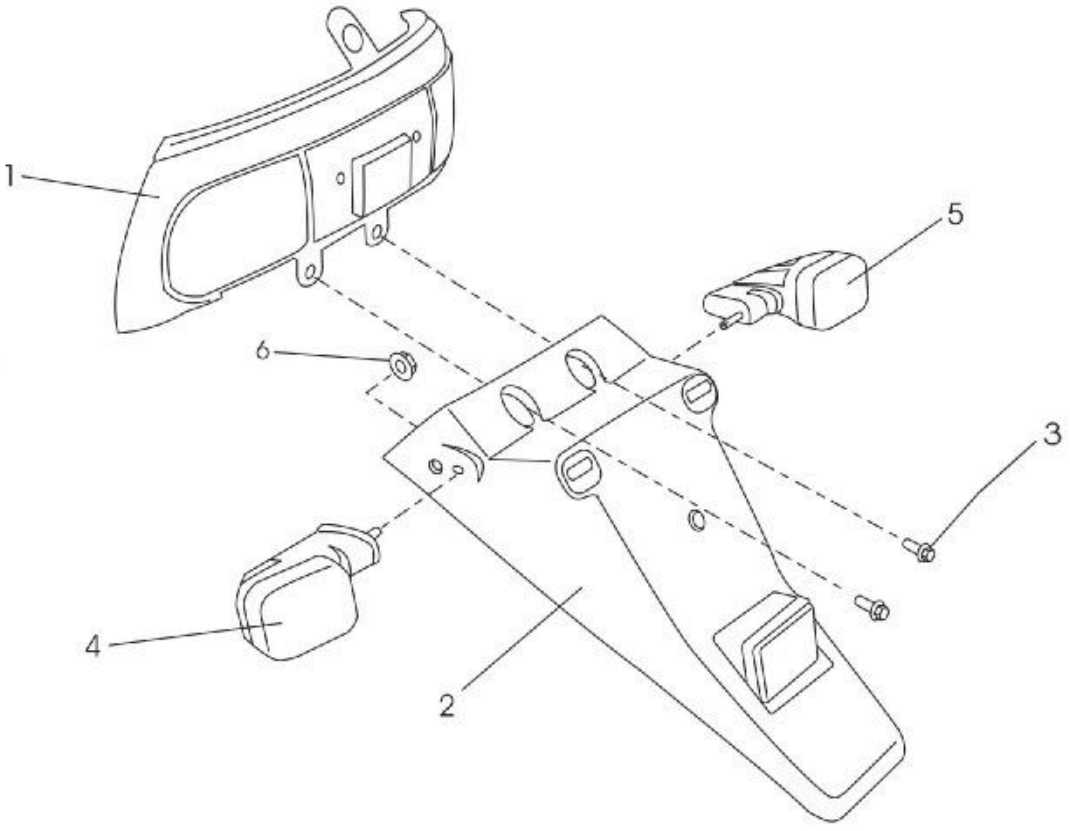
FIG.07

Part Summary (cont'd)

FIG.08 TAIL LAMP

Item NO.	Part NO.	Description	Qty.
1	0241-05000400	TAIL LIGHT SET	1
2	0241-71511	LICENSE PLATE HOLDER	1
3	6112-060208	SCREW, HEX FLANGE	2
4	0241-41411	SIGNAL LIGHT, REAR (LEFT)	1
5	0241-41412	SIGNAL LIGHT, REAR (RIGHT)	1
6	6141-060608	NUT, HEX FLANGE	2

FIG.08

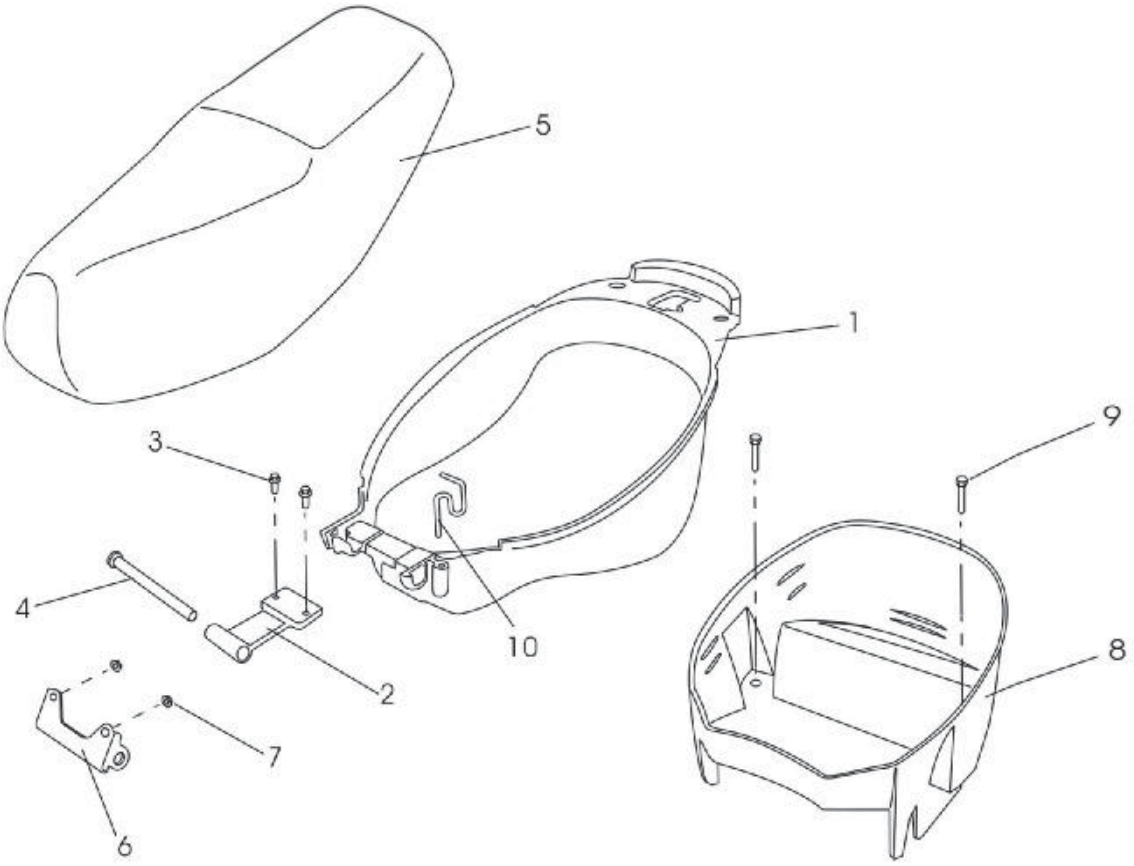


Part Summary (cont'd)

FIG.09 SEAT

Item NO.	Part NO.	Description	Qty.
1	0241-70101	SEATBOX RIM	1
2	0241-70201	HINGE, SEAT	1
3	6110-060158	SCREW, HEX HEAD	2
4	0241-70301	PIN, SEAT	1
5	0241-70401	SEAT	1
6	0241-723011	BRACKET, SEAT	1
7	6141-060608	NUT, HEX FLANGE	2
8	0241-72501	BATTERY COVER	1
9	6111-060408	SCREW, HEX	2
10	0241-72201	HANGER, HELMET	1

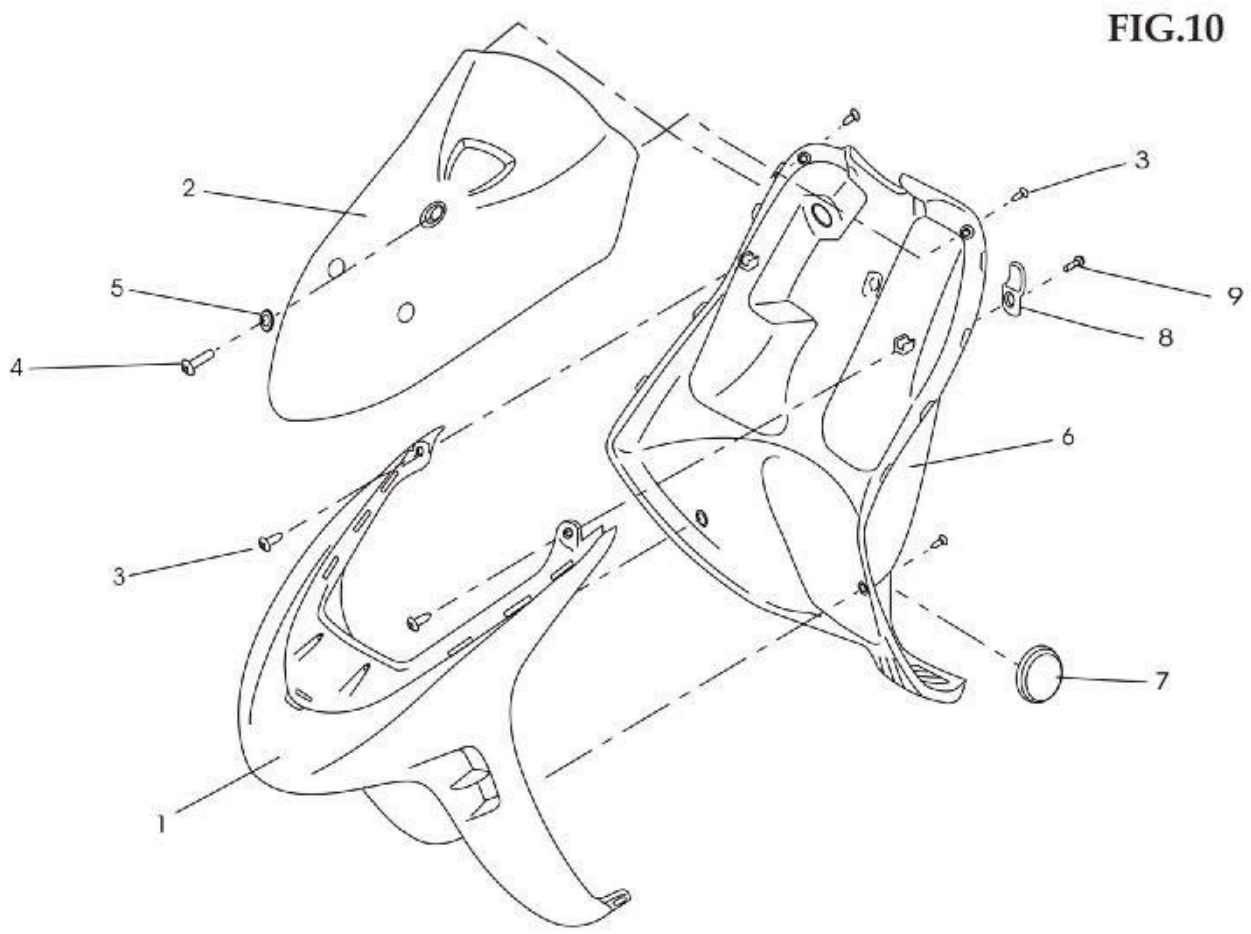
FIG.09



Part Summary (cont'd)

FIG.10 FRONT COVER

Item NO.	Part NO.	Description	Qty.
1	0241-70701	TRIM, FRONT	1
2	0241-70802	COVER, FRONT (SILVER)	1
	0241-70803	COVER, FRONT (RED)	1
	0241-70804	COVER, FRONT (GREEN)	1
	0241-70805	COVER, FRONT (BLUE)	1
	0241-70808	COVER, FRONT (DK GREEN)	1
3	6132-501511	SCREW, TAPPING	8
4	6127-0613125	SCREW, TAPPING	1
5	6150-0613125	WASHER	1
6	0241-70902	GLOVE BOX	1
7	0268-24000100	REFLECTER (AMBER)	2
8	0241-71201	HANGER, GLOVE BOX	1
9	6112-060148	SCREW, HEX FLANGE	1

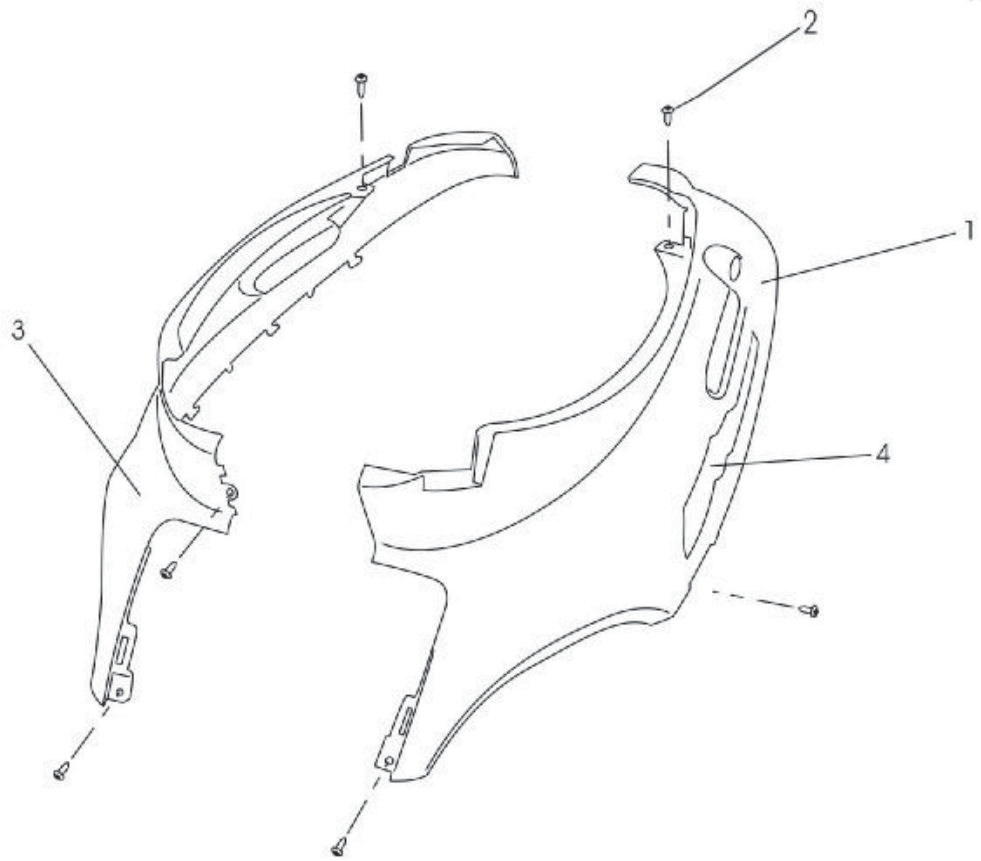


Part Summary (cont'd)

FIG.11 SIDE COVER

Item NO.	Part NO.	Description	Qty.
1	0241-70502	COVER, LEFT (SILVER)	1
	0241-70503	COVER, LEFT (RED)	1
	0241-70504	COVER, LEFT (GREEN)	1
	0241-70505	COVER, LEFT (BLUE)	1
	0241-70508	COVER, LEFT (DK GREEN)	1
2	6132-501511	SCREW, TAPPING	7
3	0241-70602	COVER, RIGHT (SILVER)	1
	0241-70603	COVER, RIGHT (RED)	1
	0241-70604	COVER, RIGHT (GREEN)	1
	0241-70605	COVER, RIGHT (BLUE)	1
	0241-70608	COVER, RIGHT (DK GREEN)	1
4	0241-20402	STICKER SET	1

FIG.11

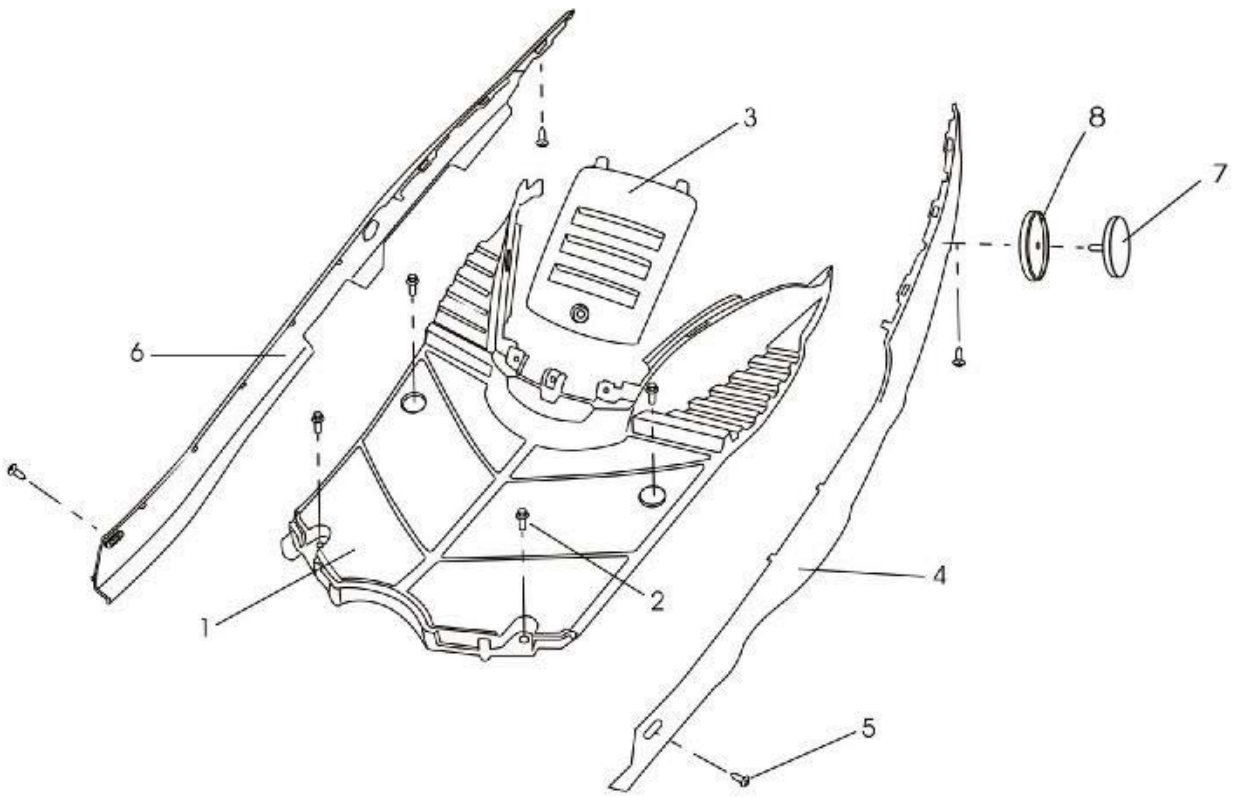


Part Summary (cont'd)

FIG.12 FOOTREST BOARD

Item NO.	Part NO.	Description	Qty.
1	0241-71301	FLOOR MAT	1
2	6112-060257	SCREW, HEX FLANGE	4
3	0241-71402	COVER, CENTER (SILVER)	1
	0241-71403	COVER, CENTER (RED)	1
	0241-71404	COVER, CENTER (GREEN)	1
	0241-71405	COVER, CENTER (BLUE)	1
	0241-71408	COVER, CENTER (DK GREEN)	1
4	0241-71901	TRIM, LEFT	1
5	6132-501511	SCREW, TAPPING	4
6	0241-72001	TRIM, RIGHT	1
7	0268-24000101	REFLECTOR (RED)	2
8	0241-24000200	BASE, REFLECTOR	2
	0241-240002A1	BASE, REFLECTOR L	1
	0241-240002AB1	BASE, REFLECTOR R	1

FIG.12

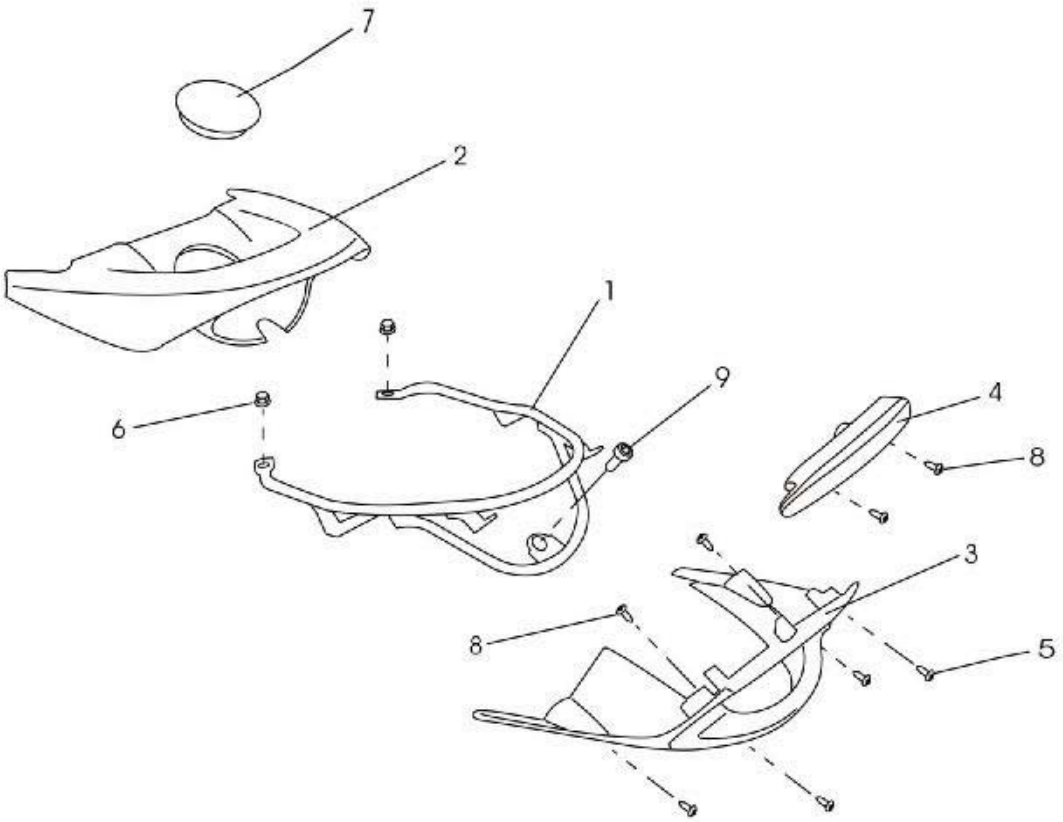


Part Summary (cont'd)

FIG.13 TAIL

Item NO.	Part NO.	Description	Qty.
1	0241-71811	TAIL BRACKET	1
2	0241-71822	TAIL COVER, UPPER (SILVER)	1
	0241-71823	TAIL COVER, UPPER (RED)	1
	0241-71824	TAIL COVER, UPPER (GREEN)	1
	0241-71825	TAIL COVER, UPPER (BLUE)	1
	0241-71828	TAIL COVER, UPPER (DK GREEN)	1
3	0241-71831	TAIL COVER, LOWER	1
4	0241-71841	LENS, THIRD BRAKE LIGHT	1
5	6132-501511	SCREW, TAPPING	4
6	6144-060601	NUT, DOME	2
7	0241-72401	CAP, FAST CHARGING	1
8	6132-401211	SCREW, TAPPING	4
9	6100-080201	SCREW, SOCKET	1

FIG.13

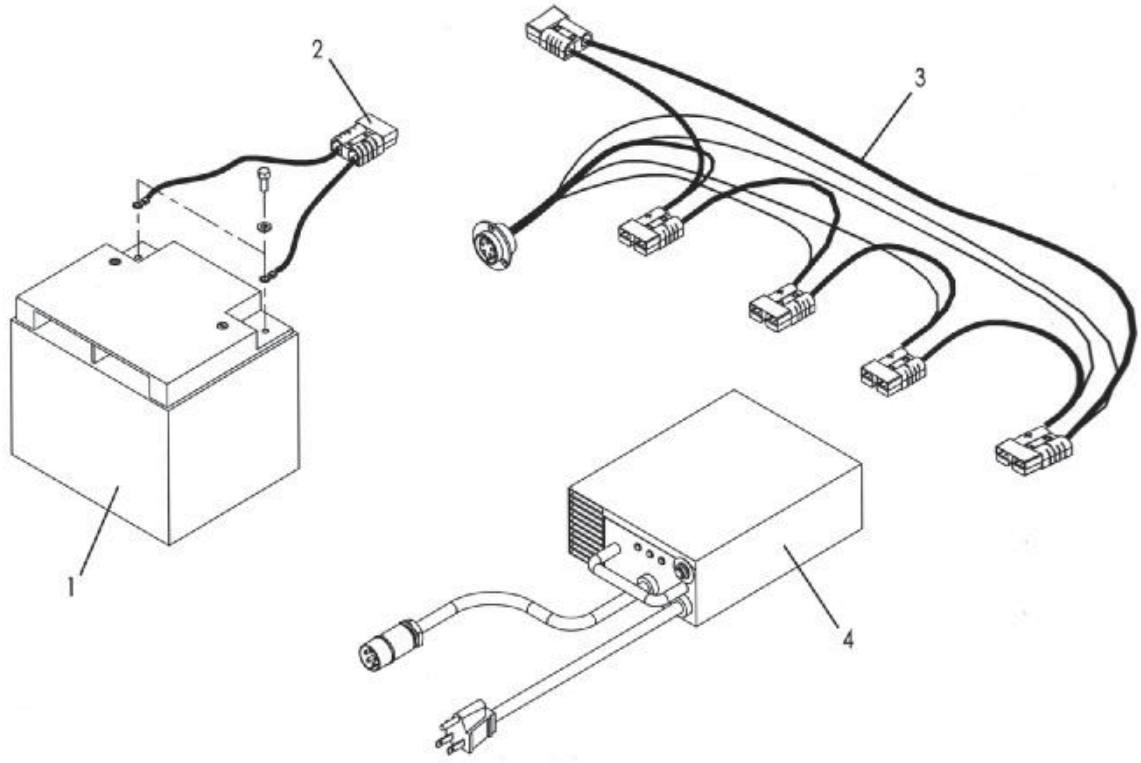


Part Summary (cont'd)

FIG.14 BATTERY

Item NO.	Part NO.	Description	Qty.
1	181-400-10	BATTERY LEV 12500	4
2	6261-040621	BATTERY CORD SET (LONG)	1
	6261-050621	BATTERY CORD SET (SHORT)	1
3	0299-05000400	CONNECTION CORD, BATTERY	1
4	0299-05000308	CHARGER	1

FIG.14



Accessories

Item NO.	Part NO.	Description
1	0241-24000100	4000E STORAGE CASE, YELLOW
2	0241-24000101	4000E STORAGE CASE, SILVER
3	0241-24000102	4000E STORAGE CASE, RED
4	0241-24000103	4000E STORAGE CASE, LIGHT BLUE
5	0241-24000104	4000E STORAGE CASE, BROWN
6	0241-24000105	4000E STORAGE CASE, GRASSY GREEN
7	0241-24000106	4000E STORAGE CASE, WHITE
8	0241-24000107	4000E STORAGE CASE, BLACK
9	0241-24000108	4000E STORAGE CASE, DARK GREEN
10	0237-00001	4000E CARGO CASE BRACKET
11	0241-80901	FRONT BASKET
12	0241-80821	WINDSHIELD
13	0241-808022	WINDSHIELD - ASSEMBLY KIT
14	745-956-20-006	EV-500 SOLAR CHARGER
15	875-738-20-001	WIRE KIT W/CONNECTOR FOR EV-500
16	PB-360P-48	LITHIUM BATTERY CHARGER
17	02A9-05000400	MOTOR BRUSH 8PC SET (BEFORE 2006)
18	02A9-05000500	MOTOR BRUSH 16PC SET (2006-2008)
19	6257-101500	REFURBISHED MOTOR (BRUSH - MODELS THROUGH 2008)